CERTAMEN MELASTOMATACEIS XI.

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In continuing the routine adjustments needed in the Melastomataceae for the Flora de Venezuela, some long-delayed decisions have finally been forced upon me by the floristic exigencies. The account of the capsular-fruited tribes of the family has been essentially completed (which a votary might construe as evidence that the work of the past years has not been mere logomachy). Unfortunately for my innate desire for leisure, the Miconieae are barely begun. The usual distractive inflow of collections from elsewhere in tropical America has not ceased, so further Colombian and Peruvian novelties have been included here; cytologic leverage has even extruded some Mexican perpensions. Most of the novelties from Paul Hutchison's superb Peruvian collections have been given formal status; the material was gathered in 1963-1964 during the Seventh Botanical Expedition to the Andes of the University of California.

BUCQUETIA VERNICOSA Gleason

Originally described from Táchira (Venezuela) material, the species has also been collected in Depto. Santander, Colombia: 15 km west of Berlin, east of Bucaramanga, *St. John 20604*; Páramo de Santurbán, *Cuatrecasas & Garcia Barriga 10320*, *Barkley & Araque 18S149*. In both *B. vernicosa* and *B. glutinosa* (L.f.) DC., the calyx lobes are sometimes sparsely ciliolate (*St. John 20604*). I have not seen any collections of *B. glutinosa* from Santander, although the species apparently is common in Boyacá and Cundinamarca (and has also been collected at Aguadita, Tolima, *Bro. L. Javier 20*).

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BRACHYOTUM CUTERVOANUM Wurdack, sp. nov.

B. campanulari (Bonpl.) Triana affinis, sed foliorum pubescentia subtus sparsiore, floribus in paniculis foliosis aggregatis, hypanthiis graciliter setulosis differt.

Trichomata laevia. Ramuli quadrangulati sicut petioli folia subtus inflorescentia hypanthiaque modice setulosi, pilis gracillimis plerumque 0.5-0.7(-1.2) mm longis. Petioli 0.4-0.8 cm longi; lamina 1.5-2.5(-3) X 0.7-1.1 cm tenuis ovato-elliptica apice acuto basi late acuta vel obtusa, 5(-7)-nervata nervulis subtus manifestis et laxe reticulatis, supra sparse vel modice et graciliter strigulosa. Flores 4-meri nutantes in dichasiis pluribus ramulorum apices versus aggregati; pedicelli 4-7 mm longi, ca. 0.5 mm diam., bracteolis 2-3 X 0.6 mm mox deciduis ca. 1 mm supra pedicellorum bases insertis. Hypanthium (ad torum) 3.5 X 2.5 mm; calycis tubus 0.6-0.8 mm altus, lobis 7-8(-11) X 1-1.3(-4) mm extus sparse strigulosis intus apicem

per 2.5-3 mm versus sparse strigulosis. Petala 15-15.5 X 8-9 mm subrhomboidea apice acuto ciliis caduce glanduliferis ca. 0.2 mm longis ornata. Stamina glabra, filamentis 4 mm longis, antheris 2.8-3.2 mm longis, connectivo ventraliter ad basim biappendiculato appendicibus ad thecis 0.4 mm liberis. Stylus 22 X 0.4 mm glaber; stigma punctiforme; ovarium apicem versus densiuscule strigulosum.

Type Collection: *A. Sagástegui 5384* (holotype US 2469209; isotype TRP), collected at La Pucarilla along the road between Sócota and San Andrés, Prov. Cutervo, Depto. Cajamarca, Peru, elev. 2420 m, 24 May 1965. "Arbusto. Flores morada-oscuras, colgantes."

The lower leaf surfaces in *B. campanulare* are sericeous-strigose, the flowers are usually in simple dichasia with thick pedicels (ca. 1 mm diam.), and the hypanthia are densely loose-strigose; generally also, the older branchlet pubescence is appressed and the leaves are rigid rather than chartaceous. The quantitative pubescence distribution gives *B. cutervoanum* quite a different aspect from *B. campanulare* and the inflorescence is much like that of *B. quinquenerve* (R. & P.) Triana; the latter relative has narrowly lanceate and internally glabrous sepals, as well as appressed cauline hairs.

358 TIBOUCHINA HUTCHISONII Wurdack, sp. nov.

Sect. *Diotanthera*. *T. incarum* Gleason et *T. stenopetalae* Cogn. affinis sed inflorescentia pauciflora petalis maioribus differt.

Ramuli teretes sicut folia supra et foliorum subtus venae primariae modice strigulosi, pilis laevibus gracilibus 0.5-1(-2) mm longis. Petioli 0.2-0.9 cm longi; lamina 3-5(-7.5) X 0.8-1.5(2.5) cm lanceata apice gradatim breviterque acuminato basi late acuta, firme membranacea, subtus in venulis sparse strigulosa in superficie subglabra, 5-nervata vel paulo (ad 3 mm) 5-plinervata, nervorum pari exteriore debili incluso. Flores in dichasiis 1-3(-5)-floris terminalibus aggregati, dichasiorum bracteis 0.8-1.5 cm longis lanceatis persistentibus; flores 5-meri, pedicellis 2-3 mm longis sicut hypanthiis sparse glanduloso-setulosis, pilis ca. 1 mm longis, bracteolis ca. 1.5 mm longis ellipticis persistentibus ca. 1 mm infra hypanthii bases insertis. Hypanthium (ad torum) 4.5-5 mm longum; calycis tubus 0.5 mm altus, lobis 2-2.5 mm longis ovato-oblongis (apice rotundato) glanduloso-ciliolatis intus glabris. Petala 15-21 X 12-17 mm glanduloso-ciliolata obovata apice oblique rotundato. Stamina paulo dimorphica glabra, filamentis 7 vel 5 mm longis, antherarum thecis 5 vel 4 mm longis paulo subulatis rectis, connectivis 0.6-0.8 vel 0.3-0.5 mm prolongatis dorsaliter ad basim interdum tuberculatis lobis ventralibus 0.3-0.5 mm longis hebetibus. Stigma truncatum; stylus 13-14.5 X 0.5 mm glaber; ovarium modice setulosum pilis p. p. glanduliferis.

Type Collection: *P. C. Hutchison, J. K. Wright, & R. M. Straw 6034* (holotype US 2469789; isotypes UC, USM), collected on wet steep banks at lower Boquerón del Padre Abad, Depto.

San Martín, Peru, elev. 480 m, 25 July 1964. "Flowers lilac pink."

Paratype: *H*. *A*. *Allard* *22102* (US), from Boquerón Pass between Tingo Maria and Pucallpa, San Martín, Peru, elev. 400 m. "Flowers rose-pink."

Tibouchina *stenopetala* has well-developed inflorescences with small (2-3 mm long) dichasial bracts and petals 6-7 mm long; *T*. *incarum* has 7-plinerved leaves, well-peduncled dichasia (the peduncle finely glandular-setulose), and petals 7-8 mm long. I have seen no authentic material of *T*. *solmsii* Cogn., but that Puno (Peru) species differs at least in the 7-nerved leaves, hypanthia with eglandular stout-based hairs, and petals 7-8 mm long. Among the collections of *T*. *hutchisonii*, well-developed leaves of *6034* are slightly plinerved but all visible leaves of *22102* are basally nerved.

TIBOUCHINA SANDIENSIS Wurdack, sp. nov. 3759

Sect. *Diotanthera*. *T*. *molli* (Bonpl.) Cogn. affinis, sed foliis floribusque minoribus differt.

Ramuli obscure quadrangulati sicut petioli folia subtus inflorescentia hypanthiaque pilis laevibus erectis 0.2-0.3 (-0.5) mm longis basim versus paulo expansis non glanduliferis dense obsiti. Petioli 0.4-0.8 cm longi; lamina 2-3.5 X 1-2 cm anguste ovata apice acuto basi obtusa vel rotundata, rigidiuscula et integra, supra modice strigosa pilis 1-1.5 mm longis, 5-nervata nervis exterioribus nervis interioribus 2-4 mm coalitis nervis secundariis 1-1.5 mm inter se distantibus supra invisis. Panicula multiflora 2.5-5 X 3-5 cm ramis divergentibus; flores 5-meri, pedicellis 2-3 mm longis, bracteolis 0.6-0.8 mm longis inconspicuis mox deciduis. Hypanthium (ad torum) 2.2 X 2 mm; calycis tubus 0.1 mm longus, lobis 1 mm longis deltoideis hebeti-acutis ad basim remotis intus glabris. Petala 5-5.5 X 2.6-3 mm elliptico-obovata ciliolata alioqui glabra, apice acutiusculo. Stamina isomorphica glabra; filamenta 4 mm longa; antherarum thecae 1.2 X 0.6 X 0.6 mm oblongae apice rotundato, poro 0.1 mm diam., connectivo 0.1 mm prolongato lobis ventralibus crassis 0.2-0.3 mm longis hebetibus. Stigma truncatum; stylus 9.5 X 0.35-0.2 mm glaber; ovarii apex sparsiuscule strigulosus, pilis 0.15-0.4 mm longis p. p. glanduliferis.

Type Collection: *Ramón* *Ferreyra* *16677* (holotype US 2469214; isotype USM), collected in low forest below Sandia, Depto. Puno, Peru, elev. 1800-1900 m, 13 May 1966. "Sufruticosa; flores morado-purpúreas."

Paratype: *R*. *D*. *Metcalf* *30606* (NY, US), from near Oconeque, Sandia, Puno, Peru, elev. 1800-2100 m, 22-25 May 1942. "Perennial herb growing from cracks of moist shaded rock wall; calyx red-green; petals purple; fruit red-green."

Tibouchina *mollis* has leaves 5-10 cm long, hypanthium 5-6 mm long and about equalled by the lobes, and anthers 4-5 mm long; in anther form, this north Andean species is the closest approach to *T*. *sandiensis*. I have not studied any of the collections cited in the Flora of Peru as *T*. *mollis*, but feel sure that they are all referable to other species. *Tibouchina dimorphophylla* Gleason has pubescence similar to that of *T. sandiensis*, but much larger leaves and flowers as well as attenuate anthers. *Tibouchina longifolia* (Vahl) Baill. has longer and proportionately narrower leaves, longer stem pubescence and calyx lobes, and larger anthers somewhat attenuate at the apex. Both the other Puno species in this general alliance, *T. gayana* (Naud.) Cogn. and (ex char.) *T. solmsii* Cogn. have larger and apically attenuate anthers as well as vegetative differences.

TIBOUCHINA BREEDLOVEI Wurdack, sp. nov.

T. durangensi Standl. distanter affinis, sed foliis minoribus pubescentioribus floribus 4-meris differt.

Ramuli acute quadrangulati sicut folia utrinque sparse strigulosi, pilis laevibus 0.5-1 mm longis. Petioli 0.2-0.5 cm longi; lamina 1.5-2.5 X 0.5-1 cm elliptica vel paulo ovato-elliptica utrinque acuta subcoriacea, trinervata nervis secundariis supra invisis subtus obscure evolutis nervulis invisis. Panicula submultiflora usque ad 8 X 6 cm, ramulis pedicellis hypanthiisque modice glanduloso-setulosis, pedicellis ca. 3 mm longis, bracteolis ca. 1 mm longis lanceatis caducis. Hypanthium (ad torum) 4 X 2.5 mm; calycis tubus 0.4 mm altus, lobis 2-2.2 X 1.7 mm triangularibus, extus glanduloso-setulosis, intus glabris. Petala 6.2-6.8 X 5-5.3 mm, obovata, apice rotundato, apicem versus subsparse ciliolata, pilis p. p. glanduliferis. Stamina dimorphica glabra, filamentis 6.2 vel 5.5 mm longis, thecis oblongo-subulatis poro ventraliter inclinato 0.2 mm diam. Stamina maiora: thecae 5 mm longae, connectivo 2.5 mm prolongato, appendicibus ventralibus 1.5 X 0.5 mm hebetibus. Stamina minora: thecae 3.8 mm longae, connectivo 0.3 mm prolongato, appendicibus ventralibus 1 X 0.6 mm hebetibus. Stylus 7 X 0.5-0.2 mm glaber; stigma punctiforme; ovarium 4-loculare, apice ipse pilis ca. 20 et 0.4-1 mm longis glanduliferis coronato. Semina 0.5 X 0.3 mm cochleata muriculata.

Type Collection: *D. E. Breedlove 10060* (holotype US 2469207; isotype DS), collected on a slope with *Pinus* and *Quercus* at Lago de Montabello, 40 km east of La Trinitaria, Municipio La Trinitaria, Chiapas, Mexico, elev. 1600 m, 27 May 1965. "Flowers purple; 3 feet tall."

Paratypes (both topotypical): *Breedlove 9693* and *Rzedowski 715*.

Tibouchina durangensis has leaf blades below the inflorescence 4-7 X 1.5-2.5 cm, these very sparsely loose-strigulose above; the flowers are 5-merous and the ventral connective lobes of the stamens are 1 X 0.7 mm. I have had qualms as to the proper generic disposition of both *T. breedlovei* and *T. chiapensis*; certainly both are suggestive of *Heterocentron* in their large stamens, but the foliar features and the definite ventral lobes on the connectives of the small stamens indicate *Tibouchina*. Neither novelty seems to belong, other than in the technicality of 4-merous flowers, in *Tibouchina* Sect. *Pseudopterolepis*, but rather with those 5-merous Mexican species with long ventral lobes at the connective base, such as T. galeottiana (Naud.) Cogn. and an unpublished species of Gleason based on Orcutt 3939. While the 4-merous flowers might also indicate that placing them in Pterolepis should be considered, there are no branched intercalycine hairs in either of these anomalous novelties and the stamens are quite different from those of Pterolepis.

TIBOUCHINA CHIAPENSIS Wurdack, sp. nov.

T. breedlovei Wurdack distanter affinis, sed ramulorum hypanthiorumque pilis minute barbellatis foliis latioribus differt.

Frutex, pilis ubique sparse vel modice minuteque barbellatis; ramuli teretes vel inconspicue rotundato-quadrangulati sicut petioli laminarum venae primariae subtus dense longo-strigulosi. Petioli 0.7-1 cm longi; lamina 2.5-4.5 X 1.5-3 cm elliptico-ovata apice late acuto vel obtuso basi obtusa, firme membranacea, supra sparse vel modice strigulosa, subtus modice strigulosa, trinervata nervis secundariis supra obscuris subtus paulo elevatis nervulis subtus laxe reticulatis. Inflorescentia submultiflora ca. 4 cm longa lataque sicut pedicelli hypanthia sepalaque appresso-setulosa pilis 0.5-1 mm longis glanduliferis; flores 4-meri, pedicellis 3-5 mm longis, bracteolis ca. 3 mm longis lanceato-linearibus caducis. Hypanthium 4-4.5 mm longum; calycis lobi 3-3.2 mm longi, anguste oblongo-triangulares persistentes. Petala 8.5 X 7 mm suborbicularia densiuscule glanduloso-ciliolata ut videtur rosea. Stamina dimorphica glabra; filamenta 8 vel 6.5 mm longa, antheris oblongo-subulatis. Stamina maiora: thecae 5-5.5 mm longae ut videtur purpureae, connectivo 3-3.5 mm prolongato, appendicibus ventralibus 1.8-2 X 0.3-0.4 mm hebetibus. Stamina minora: thecae 3.8 mm longae ut videtur flavae, connectivo 0.6-1 mm prolongato, appendicibus ventralibus 1.2-1.6 X 0.3 mm hebetibus. Stylus 10 X 0.3 mm glaber; stigma punctiforme; ovarium 4-loculare, apice modice glanduloso-setuloso.

Type Collection: T. MacDougall s. n. (Matuda Herbarium 26064) (holotype US 2364170), collected near Monserrate, Chiapas, Mexico, 9 March 1952.

Paratypes: C. A. Purpus 10200 (April, 1925) and 10627, both from mountain slopes, Fénix, Chiapas, Mexico.

Tibouchina breedlovei has smooth hairs and leaf blades only 0.5-1 cm. wide. The fruiting Purpus collections had been filed under Monochaetum but excluded from that genus by Gleason. The plumulose hairs and the foliage of T. chiapensis are somewhat suggestive of those of Monochaetum pulchrum Dcne.; that species can be distinguished vegetatively by the patent cauline pubescence.

MONOCHAETUM TACHIRENSE Wurdack, sp. nov.

M. bonplandii (Kunth) Naud. affinis, sed caulis et foliorum subtus pilis appressis praeditis, sepalis ovato-lanceatis acutis differt.

Ramuli paulo quadrangulati sicut petioli foliorum laminae utrinque inflorescentia hypanthiaque modice strigulosi, pilis laevibus gracilibus 0.5-1 mm longis, in nodis gracili-setosi, pilis paulo appressis 1-1.5 mm longis. Petioli 0.4-0.7 cm longi; lamina 2-3 X 0.8-1.2 cm lanceato-elliptica apice anguste acuto basi acuta, 5-nervata, nervorum pare interiore subtus costam per 1-2 mm parallelo, supra pilis ca. 15 per mm quad. aequaliter obsita. Flores in dichasiis terminalibus 3-5-floris dispositi; pedicelli 0.8-1.1 cm longi. Hypanthium 6-7 mm longum; sepala 4.7-5.2 mm longa ovato-lanceata acuta post anthesim persistentia. Petala 12-15 X 8-9.5 mm obovata rotundata. Stamina glabra, filamentis 6-7 mm longis. Stamina maiora: antherarum thecae 12 mm longae, appendice dorsali 4-4.5 X 0.6 mm complanata, apice hebeti-acuto. Stamina minora: antherarum thecae 2.5-3.5 X 0.1-0.2 mm lineares steriles, appendice dorsali 1.3-2 X 0.2-0.3 mm apice hebeti-acuto. Stylus 15 X 0.3 mm; ovarii apex pilis usque ad 1.2 mm longis modice armatus.

Type Collection: J. A. Steyermark 57126 (holotype VEN 10545; isotype US), collected in wet thickets between El Cobre and Cordero, Edo. Táchira, Venezuela, elev. 1520-1820 m. 8 July 1944. "Shrub 5 feet tall; leaves deep green above, silvery below; petals deep rose-orchid as are filaments and style."

I am somewhat dubious as to the exact relationships of M. tachirense, the pubescence density and rather tardily deciduous sepals suggesting an alliance with M. bonplandii and the leaf and sepal shapes perhaps indicating affinity with M. meridense (Kl. ex Karst.) Naud.; hybrid origin might be considered, but field observations are needed. Monochaetum bonplandii differs in its dense patent pubescence on the branchlets and lower leaf surfaces, as well as in the ovate-oblong sepals; M. meridense has much sparser vegetative pubescence and early-caducous sepals. The type collection of M. tachirense had previously been determined as both M. brevifolium Gleason and M. humboldtianum (Kunth & Bouché) Kunth ex Walpers; M. humboldtianum has the connective appendages of both large and small stamens as long as or slightly exceeding the anthers, as well as early-caducous sepals and larger petals.

MONOCHAETUM VILLOSUM Gleason subsp. VENEZUELENSE Wurdack, subsp. nov.

Hypanthium glabrum; calycis lobi ciliati; tori regio extus glabra.

Type Collection: F. J. Breteler 3370 (holotype NY; isotypes US, VEN), collected in moist shade along road to Barinas 79 km from Mérida (apparently ca. Estados Mérida-Barinas boundary), elev. 2800 m, 21 Nov. 1963. "Shrublet 60 cm tall. Petioles dark red; leaves herbaceous, slightly glossy and medium green above, paler and dull below. Calyx green. Corolla white. Filaments white; anthers yellow."

The typical subspecies of M. villosum, still known only from the Colombian (Huila) type collection, has evenly fine-setose hypanthia with a zone of setae at the torus line. The other

Venezuelan species of Gleason's group Dicranantherae, M. jahnii Pittier, resembles M. villosum subsp. venezuelense in its glabrous hypanthia, but has a dense zone of toral hairs externally at the hypanthial apex, pink (rather than white) petals, and a glabrous ovary. Breteler 3370 shows a distinct crown of gland-tipped ovarial hairs up to about 1 mm long. In his original description of M. villosum, Gleason noted that the hypanthial hairs in part were caducously gland-tipped; his key in the treatment of the South American species is therefore misleading. Perhaps M. villosum will not be maintained as specifically distinct from M. glanduliferum Triana when more collections are available; for the present, however, the eglandular vegetative hairs and longer cauline pubescence can serve to separate the Huila species from the earlier-described one.

RHYNCHANTHERA CARDONAE Wurdack, sp. nov.

Sect. Anisostemones. A speciebus 17-19 Monographiae Cogniauxii differt foliis supra sparsissime gracili-setosis glabrescentibus.

Suffrutex paulo ramosus; ramuli quadrangulati sicut petioli inflorescentiaque sparse setosi (pilis gracilibus caduce glanduliferis 1.5-2.5 mm longis) et densiuscule caduceque setulosi (pilis plerumque 0.2-0.3 mm longis) ad nodos densiuscule gracilisetosi. Petioli 0.5-1.2 cm longi; lamina (3.5-)5-7.5 X (1-)1.5-2.5 cm lanceata apice anguste acuto, basi obtusa vel rotundata, firme membranacea, supra primum sparsissime brevi-setosa demum glabrata, subtus praecipue secus nervos sparse gracili-setosa pilis p. p. minore caduce glanduliferis, 5-nervata (nervorum pare debili inframarginali neglecto), distincte crenato-serrulata, dentibus ca. 8 per cm et 0.3-0.8 mm altis setuliferis. Inflorrescentia anguste thyrsoideo-paniculata foliolosa usque ad 23 cm longa, ramis brevibus plerumque 3-4 cm longis bracteosis ca. 5-floris; flores breviter (1-2 mm) pedicellati. Hypanthium (ad torum) 5.7-6 mm longum sicut sepala dense glanduloso-setulosum, pilis gracilibus 0.6-1 (in calyce ad 2) mm longis; calycis tubus 0.3 mm altus, lobis 11 X 1.8 mm subulatis. Petala ut videtur rubro-purpurea 15-18 X 9 mm rhomboideo-obovata apice late acuto, marginibus apicem versus glandulis sessilibus ornatis. Staminum maiorum: filamentum 7 mm longum; antherae thecae 6.8 mm longae, rostro 4.5 mm longo, connectivo 7 mm prolongato 1.4 mm lato. Stamina minora: filamenta 5 mm longa; antherarum thecae 6.8 mm longae, rostris 3 mm longis, connectivis 2.8 mm prolongatis 0.4 mm latis ventraliter paulo (0.4 mm) tuberculatis. Staminodia 3.2 X 0.2 mm linearia. Stylus 13 X 0.7-0.3 mm glaber; ovarium 3-loculare, apice inconspicue puberulo, pilis 0.1-0.3 mm longis.

Type Collection: F. Cardona 2858 (holotype VEN; isotype NY), collected "en playa, Salto Río Ichún, Alto Paragua," Edo. Bolívar, Venezuela, elev. 380 m, 1 March 1958.

The three postulated relatives have the upper leaf surfaces persistently and evenly fine-strigose; perhaps the closest of the trio is R. haenkeana DC., for which two recent collections from northern Peru (San Martín) are Loriega s.n. and Woytkowski 6117.

Other species placed in this alliance by recent describers are R. linearifolia Hoehne and R. riparia S. Moore; the former differs in the much narrower leaves (1-1.3 cm wide) and the flowers with relatively shorter rostra on the anthers; the latter (ex char.) has evenly strigose leaves and smaller flowers with "subsetaceous" calyx lobes. Among the related species-group characterized by Cogniaux as subeglandulose, R. verbenoides Cham. differs (ex char.) in the stout petioles, rigid and relatively narrower leaves, and "subglabrous" calyx lobes. The floral dimensions given for R. cardonae are from a flower bud just before anthesis; thus the filaments and style are probably somewhat immature.

RHYNCHANTHERA APURENSIS Wurdack, sp. nov.

Sect. Anisostemones. R. secundiflorae Naud., R. leucorrhizae S. Moore, et R. cacerensi Hoehne affinis, differt floribus minoribus.

Ramuli quadrangulati sicut inflorescentiae hypanthiaque modice glanduloso-setulosi, pilis gracilibus 0.5-1 mm longis. Folia inferiora delapsa; foliorum superiorum petioli 0.3-0.8 cm; lamina 2-3.5 X 1-1.5 cm, ovata vel elliptico-ovata apice acuto basi obtusa vel rotundata, membranacea et serrulata, utrinque primum sparse setulosa demum nervis primariis subtus exceptis glabrata, 5-nervata. Inflorescentia ramosa, ramis usque ad 15 cm longis foliolosis secundifloris; flores singuli, pedicellis ca. 0.5 (demum in statu fructifero ca. 1) mm longis. Hypanthium (ad torum) 3.5 mm longum; calycis tubus 0.3 mm altus, lobis 2-2.2 (in statu fructifero ca. 2.7) X 1 mm oblongo-triangularibus densiuscule glanduloso-setulosis. Petala 7-7.5 X 4.5 mm oblongo-obovata, apice late acuto et glanduloso-ciliolato setis paucis gracilibus 0.3-0.5 mm longis. Staminum maiorum: filamentum 4.5 X 0.6 mm; antherae thecae 4 X 1.5 mm, rostro 1.5 X 0.2-0.3 mm, connectivo 5 mm prolongato 0.7 mm lato. Stamina minora: filamenta 3.5-3.7 X 0.4-0.6 mm; antherarum thecae 3.8-4 X 1.2 mm, rostris 1.5-1.8 X 0.2-0.3 mm, connectivis 2.5-3 mm prolongatis 0.3-0.4 mm latis basi ipsa paulo expansa. Staminodia 2.3 X 0.1-0.15 mm linearia. Stylus 12 X 0.4 mm glaber; stigma paulo expansum 0.7 mm diam.; ovarium 3-loculare, apice inconspicue glanduloso-puberulo pilis 0.1-0.2 mm longis.

Type Collection: Leandro Aristeguieta & Getulio Agostini 4130 (holotype US 2324167; isotype VEN), collected in the region of the Selvas de San Camilo, between Guacas and Guasdualito, Edo. Apure, Venezuela, March 1960. "Planta fruticosa, alrededor 1 m alta. Flores moradas."

All three relatives (ex char.) have petals 13-25 mm long and anther rostra 3-5 mm long. Rhynchanthera secundiflora, from Paraguay, has subulate calyx lobes about as long (4-5 mm) as the hypanthia. The two Brazilian relatives, with anther rostra about as long as the thecae, are from the same region, near São Luiz de Caceres in the Rio Paraguai drainage of Mato Grosso; the descriptions are so similar that these taxa may well be synonymous. The direct affinity of each of the two newly described Venezuelan species with austro-Amazonian taxa, rather than with those from northern South America, is striking.

ADELOBOTRYS DC., Prodr. 3: 127. 1828.
Davya DC., Prodr. 3: 105. 1828.
Xeracina Raf., Sylva Telluriana 98. 1838.

To Adelobotrys, de Candolle originally ascribed only A. scandens (Aubl.) DC. (Melastoma scandens Aubl.). Under Davya, he listed four species in the following order: D. paniculata DC., D. glabra DC., D. guianensis DC., and D. peruviana DC.; of these, the first two were transferred in 1871 by Triana to Meriania, while the latter two were synonymized by him under A. adscendens (Sw.) Triana. Gleason (1932) distinguished A. guianensis (DC.) Gleason from A. adscendens by anther structure.

In his discussion of Davya (Mem. Melast. 17. 1829), de Candolle indicated the generotype as D. guianensis by his comment: "J'ai primitivement établi ce genre sur une espèce recueille à la Guiane française par Patris, et qui fait partie de mon herbier. Dès-lors, j'en ai trouvé une seconde espèce.....; et deux....". Naudin was apparently the first taxonomist subsequent to de Candolle to consider the possible synonymy of the two genera described in the Prodromus. In his treatment of Davya, he placed in Sect. Eudavya D. glabra DC., D. claussenii Naud., and D. calyptrata Naud.; in Sect. Adelobotrys (Naud.) DC. were placed D. ciliata Naud. and D. scandens (Aubl.) Naud. Naudin apparently had not seen the Patris type collection of D. guianensis DC., commenting at the end of the treatment of Davya (under Species fortassis addendae): "10. D.? guyanensis DC., l.c.--Nonne species affinis D. ciliatae?" Both Triana and Cogniaux subsequently treated Davya as a section of Meriania and Adelobotrys as a genus.

Naudin's failure to include D. guianensis in his Sect. Eudavya renders illegitimate his choice of the generic name Davya rather than Adelobotrys (International Code, Article 48). Therefore, the use of Adelobotrys by Triana, Cogniaux, and Gleason can be upheld. Dr. Gleason in his melastome notes implied his awareness of this nomenclatural turmoil and wrote: "There is little sense in bringing it up again." I am following in the tradition of Triana and his successors in the Melastomataceae by using the spirit and substance of the International Code to avoid wholesale transfers. While Davya thus has no status as a section in Meriania, there is no need at present to coin a new subgeneric name since Cogniaux' species alignment in Swartz's genus surely needs adjustment.

The gender of the generic name Adelobotrys was not established by de Candolle. Triana's usage was feminine, with the apparent choice of the latinized form of "botrys" rather than the identical Greek masculine word. R. C. Foster and H. W. Rickett have both told me that there is no classical reason that Triana's usage should not be followed; however another respected botanical classicist, because the first part of the word, "Adelo-" is Greek, has disagreed with this interpretation.

In describing the genus *Xeracina*, Rafinesque placed there definitely three species of Aublet: *Melastoma villosa*, *M. aquatica*, and *M. scandens*. The first two of these were later (1849) placed by Naudin in his monotypic genera *Desmoscelis* and *Nepsera*. The third species had already (1828) been used by de Candolle as the generotype of *Adelobotrys*. To avoid displacing either of Naudin's names for widespread species, *X. scandens* (Aubl.) Raf., Sylva Telluriana 98. 1838, is herewith designated as the generotype of *Xeracina* Raf. The generic description of *Xeracina* is sufficiently vague (and also quite inaccurate in "bacca exsuca") that no taxonomic evaluation is needed as to Rafinesque's generotypic concept.

GRAFFENRIEDA SIPAPOANA Wurdack, sp. nov.

G. sessilifoliae Triana affinis, sed foliis bene petiolatis septuplinervatis differt.

Arbor parva; ramuli hebeti-quadrangulati sicut folia subtus inflorescentia hypanthiaque primum densiuscule furfuracei, pilis nigro-rufis crassis barbellatis 0.1-0.2(-0.3) mm longis erectis, demum glabrescentes. Petioli 4-7 cm longi ad apicem vel paulo infra bigibbosi, gibbis ellipsoideis vel sphaericis 2-5 mm longis hebetibus; lamina (8-)12-18 X (5-)8-14 cm, elliptico-ovata vel oblongo-elliptica, apice rotundato vel late hebeti-obtuso, basi ca. 3-5 mm cordulata, coriacea et integra vel obscure crenulata dentibus ca. 4 mm inter se distantibus et 0.1-0.2 mm altis, 7-9-plinervata nervorum pare intimo (2-)3-4 cm supra basim inserto pare intermedio 1-1.5 cm supra basim inserto paribus ceteris exterioribus basalibus nervis secundariis 4-8 mm inter se distantibus subtus creberrime elevatis nervulis planis laxiuscule reticulatis areolis irregularibus ca. 0.5-1 mm latis, supra glabra, subtus in superficie sparse resinoso-glandulosa. Panicula fructifera 15-30 cm longa multiflora; pedicelli 3-5 mm longi, 1-1.5 mm diam.; flores ob tori cicatrices evidenter 5-meri. Hypanthium (ad torum) 7-8 X 6 mm; torus membrana fimbriata paulo indurata armatus; calyx evidenter in lobis 2-3 ovatis 3-4 mm longis persistentibus fissus, tubo torum supra ca 1 mm longo. Capsula trilocularis, apice in tubum 2.5 mm longum laceratum prolongato, dentibus 0.3-0.5 mm longis; semina numerosa 1-1.2 X 0.2-0.3 mm, recta laevia paulo angulata.

Type Collection: *B. Maguire & L. Politi 28478a* (holotype NY; isotypes US, VEN), collected in the savanna of Campo Grande, Cerro Sipapo, Terr. Amazonas, Venezuela, elev. 1370 m, 20 Jan. 1949.

Paratype: *Maguire & Politi 28272*, from Caño Profundo, near Caño Negro, Cerro Sipapo, elev. 1460 m, 10 Jan. 1949.

Graffenrieda sessilifolia has pubescence, foliar texture and venulation, calyx lobes, and (in subsp. *occidentalis* Wurdack) ovarial features as in the Sipapo species, but sessile 5-7-nerved leaves. Another probable distant relative is *G. rotundifolia* (Bonpl.) DC., with 3-nerved leaves, truncate calyx, and rather blunt apical lobes on the ovary. Because of differences in the foliar venulation and pubescence, I do not believe that

G. sipapoana is closely related to G. rupestris Ducke; that species has a 5-celled ovary with similar apical teeth. Despite the distinctive leaves, the description of G. sipapoana has been long postponed because of the lack of flowering material (cf. Mem. N. Y. Bot. Gard. 8: 136. 1953, sub G. versicolor); however the hope for such collections has become progressively dimmer, with no immediate prospect of anyone visiting the Sipapo cumbre during the inimical late rainy season. The nodular protuberances at the petiole apices of the Sipapo tree are reminiscent of those found in the Ecuadorian Miconia gibba Markgraf.

GRAFFENRIEDA LATIFOLIA (Naud.) Triana subsp. MERIDENSIS Wurdack, subsp. nov.

Folia 5- vel indistincte 7-nervata. Petala acuta.

Type Collection: A. L. Bernardi 1025 (holotype NY), collected in cloud-forest at La Carbonera, Edo. Mérida, Venezuela, elev. 2300 m, 24 Oct. 1953. "Arbol de 4-5 m de alto."

Paratypes (all Edo. Mérida): Bernardi 383, Cerro El Toro, elev. 2200 m; Bernardi 2258, Pueblos del Sur, elev. 1800-1900 m; Steyermark 56018, Cerro San Isidro, above La Carbonera, elev. 2430-2475 m; Steyermark 56490, Canagua-El Molino, elev. 2530-2715 m.

The typical subspecies, known from the West Indies, Trinidad, and the Venezuelan coastal cordillera (Aragua, Distrito Federal, Miranda), has 7-9-nerved (and generally larger) leaves and apically rounded petals. The related G. emarginata (R. & P.) Triana, apart from the relatively heavy pubescence and definitely 4-celled ovaries, resembles G. latifolia.

SALPINGA GLANDULOSA (Gleason) Wurdack, comb. nov.

Macrocentrum glandulosum Gleason, Bull. Torrey Club 58: 422. 1931.

SALPINGA PUSILLA (Gleason) Wurdack, comb. nov.

Macrocentrum pusillum Gleason, Bull. Torrey Club 58: 422. 1931.

My doubts concerning the original generic disposition of these two Guayana species (Phytologia 9: 417. 1964) have been confirmed during a study of Venezuelan Bertolonieae. Both species have dimorphic anthers with large blunt appendages which are erect, quite in accord with the stamens of S. secunda DC. (the generotype), S. dimorpha (Gleason) Wurdack, and S. maranonensis Wurdack; the species of Macrocentrum have essentially isomorphic stamens with subulate descending spurs.

MACROCENTRUM STEYERMARKII Wurdack, sp. nov.

M. rubescenti Gleason et M. minore Gleason affinis, sed pedicellis longioribus differt.

Herba pusilla 7-15 cm alta; ramuli sicut petioli modice setulosi, pilis gracilibus caduce glanduliferis 0.7-1 mm longis. Petioli plerumque 3-8 mm longi; laminae membranaceae in quoque jugo aequales vel paulo (1:1.5) inaequales raro valde dispariles,

in folia matura ut videtur uninervatae sed in folia juvenilia inconspicue trinervatae, nervis secundariis tertiariisque laxe reticulatis satis inconspicuis, plerumque 1.2-2.4 X 0.7-1.3 cm, ellipticae, apice late acuto vel obtuso, basi late acuta, glanduloso-ciliolatae et integrae vel inconspicue serrulatae, supra costam versus glabrae margines versus sparse glanduloso-setulosae, subtus sparsissime glanduloso-setulosae. Flores 4-meri in ramulis terminales demum laterales plerumque solitarii; pedicelli ad anthesim 7-10 mm longi graciles ca. 1 mm infra hypanthii basim articulati et bibracteolati, bracteolis 1-1.5 X 0.1-0.2 mm, linearibus, infra articulum modice glanduloso-setulosi. Hypanthium (ad torum) 1.5 mm longum 8-costatum sparse glanduloso-setulosum; calycis tubus 0.3 mm altus, lobis oblatis 0.7-0.8 X 1.7 mm secus margines glandulis instructis, dentibus exterioribus hebetibus paulo (0.1 mm) eminentibus. Petala 5-5.5 X 2.4 mm oblonga apice rotundato et setula glandulifera unica ca. 0.2 mm longa armato. Filamenta ca. 2 mm longa; antherarum thecae ca. 2 mm longae, connectivo infra loculos ca. 0.3 mm prolongato, appendice dorsali descendente acuta 0.6 mm longa. Stylus ca. 5 X 0.2 mm; stigma non expansum; capsula 3-locularis.

Type Collection: *Bassett Maguire, Julian A. Steyermark, & Celia K. Maguire 53864* (holotype VEN; isotypes NY, US), collected on top of moist west-facing escarpment, Cerro Uroi, Río Uroi, drainage of Río Chicanán, 6°15'N, 61°50'W, Edo. Bolívar, Venezuela, 13 Sept. 1962. "Locally frequent. Flowers white."

Macrocentrum rubescens has pedicels 2-3 mm long, branchlet internodes glabrous, and petals 9-11 mm long. *Macrocentrum minus* vegetatively is like *M. steyermarkii* but has pedicels only 1-1.5 mm long, as well as esetulose petals. More distantly related is *M. vestitum* Sandwith, with pedicels like those of the Uroi species but upper leaf surfaces evenly setose and petals pink-flushed and with an apical seta 0.5-0.8 mm long. The staminal dimensions given for *M. steyermarkii* are from a mature bud.

MICONIA INGENS Wurdack, sp. nov.

M. brachycalyci Triana, *M. centronioidi* Gleason (ex char.), et *M. megalanthae* Gleason affinis, sed foliis supra laxe strigulosis differt.

Ut videtur arbor. Ramuli sulcato-quadrangulati sicut petioli inflorescentia hypanthiaque indumento amorpho-squamuloso appresso dense induti. Petioli 4.5-11 cm longi; lamina (caudam exclusa) 15-35 X 12-25 cm apice per 1.5-2.5 cm caudato-acuminato basi paulo (0.7-1 cm) cordata, membranacea et integra vel obscure undulato-serrulata, supra modice longo-strigulosa, pilis 0.7-1.3 mm longis laevibus gracilibus laxiusculis 1-2 per mm. quad., subtus in venis venulisque primum modice squamulata demum glabrata in superficie primum sparse resinoso-granulosa demum glabra, 7-nervata, nervis secundariis plerumque 0.5-1 cm inter se distantibus nervulis subtus paulo elevatis et reticulatis areolis ca. 0.3 mm latis. Panicula 22-26 cm longa submultiflora, pedicellis 2 mm longis incrassatis ad apices bibracteolatis, bracteolis 2.5-3 mm longis anguste ovatis usque ad anthesim persistentibus; flores 5-meri. Hypanthium (ad torum) 4 X 3 mm; calycis tubus 1.7-2 mm altus, lobis 0.5-0.7 X 4 mm oblatis apice rotundato, dentibus exterioribus vix elevatis nec liberis nec eminentibus. Petala 16-18 X 14-16 mm, extus dense amorpho-squamulosa obovata, apice rotundato et plerumque paulo emarginato. Stamina isomorphica; filamenta 9-10 mm longa modice glanduloso-puberula, pilis 0.1 mm longis; antherarum thecae 6.7-7.5 X 1.2 X 1 mm, poro ventraliter inclinato 0.3 mm diam., connectivo basaliter per 4.5-5.5 mm dense glandulis sessilibus juxta thecas obsito, dorsaliter prope basim per 3 mm paulo elevato ad basim dorsaliter dente hebeti glabro 0.2-0.3 mm longo ornato. Stigma capitellatum 1.6 mm diam.; stylus 17.5 X 1.1-0.8 mm basim versus per 3-4 mm densiuscule glanduloso-puberulus in ovarii apicem 0.5 mm immersus; ovarium 3(?)-loculare 1/2 inferum glabrum.

Type Collection: Kjell von Sneidern 751 (holotype S), collected in primaeval forest at La Costa, El Tambo, Depto. Cauca, Colombia, elev. 1000 m, 24 June 1936.

Paratype: von Sneidern 787, from the same locality, 7 Sept. 1936.

The three suggested relatives have the general floral features of M. ingens, including puberulent hypanthia and petals, large petals, expanded stigmas, and glandular anther connectives; all, however, have the leaves glabrous above at maturity (more-or-less stellulate-lepidote when young) and with acute bases. Miconia centronioides (ex char.) has glabrous filaments and style and (as in M. brachycalyx) the connective glands only near the thecae bases. More distantly related is M. axinaeoides, with a punctate stigma, and oblong-obovate leaves which are glabrous above. The placing of M. centronioides, M. megalantha, and M. axinaeoides in Sect. Adenodesma does not seem satisfactory. The five species above mentioned, along with M. notabilis Triana and M. poecilantha Uribe, form a related species-group, but the most satisfactory sectional disposition is not obvious at present.

MICONIA RAVENII Wurdack, sp. nov.

M. globuliferae Naud. affinis, sed laminis foliorum subtus pilis brevissime stipitato-stellatis instructis, inflorescentiae ramis sparsissime glanduloso-setulosis, floribus plerumque 4-meris differt.

Ramuli sulcato-quadrangulati sicut petioli inflorescentia hypanthiaque pilis barbellatis vel brevissime (stipite 0.2-0.3 mm longo, ramis 0.1 mm longis) stipitato-stellatis erectis dense induti. Petioli (2-)4-7 cm longi; lamina (7-)10-16 X (4-)6-10 cm ovata, apice gradatim hebeti-acuminato, basi rotundata vel paulo (ad 0.5 cm) cordata, membranacea et distanter (2-4 mm) undulato-serrulata, supra modice strigulosa, pilis simplicibus 0.4-1.2 mm longis, subtus sparsiuscule (5-6 per mm quad.) stipitato-stellata (stipite 0.1-0.15 mm longo, ramis 0.15-0.2 mm longis), 7-nervata, nervorum pare interiore 0.5-1 cm supra basim divergente nervis secundariis ca. 5 mm inter se distantibus, nervulis laxe areolatis supra obscuris subtus crebre elevatis. Panicula submultiflora sparsissime glanduloso-setulosa, pedunculo 4-6 cm longo, ramis oppositis; flores plerumque 4-meri, pedicellis ca. 1.5 mm (in statu fructifero usque ad 3 mm) longis. Hypanthium (ad torum) 3.6 X 2.7 mm, pilis ca. 0.3-0.5 mm longis plerumque barbellatis pilis breviuscule stipitato-stellatis sparse intermixtis praeditum; calycis tubus 0.4 mm altus, lobis interioribus 0.5-0.7 mm altis oblatis, dentibus exterioribus setula terminali 0.3 mm longa inclusa ca. 0.6 mm eminentibus. Petala 5-5.4 X 4-4.2 mm oblongo-obovata, apice rotundato, minutissime granulosa. Filamenta 3 mm longa glabra; antherarum thecae 3.8 X 0.7 X 0.6 mm, poro 0.2 mm diam. paulo ventraliter inclinato. Stigma punctiforme; stylus 10 X 0.5-0.3 mm basim versus sparsissime glanduloso-setulosus; ovarium 4-loculare 9/10 inferum apice in collum 0.9 mm altum circum stylum protracto collo modice glanduloso-setuloso, pilis 0.1 mm longis.

✓Type Collection: *D. E. Breedlove & P. H. Raven 12928* (holotype US 2469212; isotype DS), collected on a steep slope near ridge crest in the paraje of Banabil, Municipio Tenejapa, Chiapas, Mexico, elev. 2800 m, 10 Oct. 1965. "Plant 3 feet tall."

Miconia globulifera has the lower leaf surface hairs with a stalk about 0.25 mm long and the arms about 0.06 mm long, eglandular inflorescence pubescence, and predominantly 5-merous flowers. From the limited material examined (*Seler 2938*, det. Louis Williams), I am skeptical of the distinctness of *M. echinoidea* Standl. & Steyerm., described from Huehuetenango, Guatemala; indeed, *M. globulifera* has been collected on Cerro Boquerón in Chiapas no great distance from Huehuetenango. For the study of *M. globulifera*, *Purpus 7333*, from Cerro Boquerón, as well as two Vera Cruz collections (*Schiede & Deppe 559*, *Pringle 8180*) have been examined. Another relative in this complex is *M. tuerckheimii* Cogn., which has essentially sessile (the stalk to 0.1 mm long) stellate hairs on the hypanthia, much denser upper leaf surface pubescence (8-10 per sq. mm, rather than 4-5), and moderately glandular-setulose inflorescences. More distantly related are *M. guatemalensis* Cogn. and *M. anisotricha* (Schlecht.) Triana; the latter species (known by the recent collections *Nelson 293*, *Pringle 8101*, *Pringle 13495*, *Rzedowski 15533*, *Conzatti 3474*, and *Balls 4710*, from Vera Cruz, Hidalgo, and Oaxaca) is quite reminiscent of *Leandra melanodesma* (Naud.) Cogn. in general aspect, posing a generic problem. Of the examinable flowers in *Breedlove 12928*, 71 were 4-merous and 20 were 5-merous.

MICONIA JITOTOLANA Wurdack, sp. nov.

M. ravenii Wurdack affinis, sed foliis minoribus supra minus strigulosis, inflorescentia modice glanduloso-setulosa, floribus plerumque 5-meris, ovarii apice glabro differt.

Ramuli teretes sicut petioli inflorescentia hypanthiaque pilis stipitato-stellatis (stipite 0.2-0.6 mm longo, ramis 0.1-0.2 mm longis) erectis densissime armati. Petioli (1-)2-4 cm longi; lamina 5-11 X 2.5-5 cm ovato-elliptica, apice per 1-2 cm gradatim hebeti-acuminato, basi late acuta, membranacea et integra, supra sparse strigulosa, pilis ca. 1 mm longis simplicibus 1(-2) per mm quad., subtus in superficie densiuscule puberula, pilis stipitato-stellatis stipite ca. 0.1 mm longo et ramis 0.2 mm longis, breviter 5-plinervata, nervorum pare interiore 0.5-1 cm supra basim subalternatim inserto, nervis secundariis 4-5 mm inter se distantibus, nervulis laxe reticulatis supra obscuris subtus ob pilos pro parte maxima occultis. Inflorescentia pauciflora sicut hypanthia sparsiuscule vel modice glanduloso-setulosa, pilis ca. 0.5 mm longis laevibus, pedunculo ca. 2.5 cm longo, ramis primariis plerumque tribus 1.5-2 cm longis; flores 5-meri ad ramorum apices glomerati, pedicellis crassis ca. 1.5 mm longis, bracteolis 1.5 X 0.2-0.3 mm caducis ad pedicellorum bases insertis. Hypanthium (ad torum) 3-3.5 X 3 mm; calycis tubus 0.8 mm altus, lobis interioribus 0.2 mm altis oblatis, dentibus exterioribus non eminentibus setula simplici 0.8-1 mm longa terminatis. Petala 4.4-4.5 X 3.5-4 mm glabra obovata apice oblique rotundata. Stamina isomorphica glabra; filamenta 3.5 mm longa; antherarum thecae 2.8-3 X 0.6-0.7 mm poro 0.15 mm diam. ventraliter inclinato. Stigma truncatum non expansum; stylus 8 X 0.5 mm glaber; ovarium 5-loculare 9/10 inferum glabrum, apice in collo 0.7 mm alto circum stylum protracto.

✓Type Collection: *D. E. Breedlove 11951* (holotype US 2469210; isotype DS), collected on slope along road to Pueblo Nuevo Solistahuacán, 8 km south of Jitotol, Chiapas, Mexico, elev. 1700 m, 19 August 1965. "Flowers white; plant 5 feet tall."

Of the flowers examined in *Breedlove 11951*, 43 showed 5-mery and 3 were 4-merous. As is obvious in the discussion under *M. ravenii*, the Guatemalan species *M. echinoidea* Standl. & Steyerm. and *M. tixixensis* Standl. & Steyerm. certainly do not lack Central American relatives; indeed, the plethora of cognates indicates the need for species reevaluation here and also elsewhere in *Miconia* Sect. *Octomeris*.

MICONIA SNEIDERNII Wurdack, sp. nov.

M. multuplinerviae Cogn., *M. penicillatae* Gleas., et *M. fosbergii* Wurdack affinis, sed foliis non plinervatis supra densiuscule pilis stipitato-stellatis ornatis differt.

Ramuli teretes sicut petioli foliorum subtus venae primariae inflorescentiaque pilis erectis stipitato-stellatis (stipite 1-1.8 mm longo, ramis 0.5 mm longis) dense induti. Petioli 1-1.4 cm longi; lamina 7-10 X 3-5.5 cm elliptico-ovata, apice acuto vel paulo gradatimque acuminato, basi rotundata vel paulo (0.2 cm) cordata, firme membranacea et integra, supra et subtus sicut hypanthia pilis stellatis breviter (0.3-0.5 mm) stipitatis modice vel dense induta, 5-nervata nervis secundariis 3-4 mm inter se distantibus sicut nervis tertiariis supra paulo impressis subtus paulo elevatis nervulis reticulatis areolis 0.3-0.5 mm latis. Panicula 16 X 10 cm multiflora, ramis ramulisque pilis laevibus glanduliferis 0.8-1.3 mm longis sparse obsitis; flores 5-meri in glomerulis ad ramulorum apices aggregati, bracteolis ca. 1.5 X 0.4 mm basalibus, pedicellis 0.7 mm longis. Hypanthium (ad torum) 1.5 mm longum; calycis tubus 0.2 mm altus, lobis interioribus 0.4-0.6 mm longis oblongis, dentibus exterioribus lobos interiores aequantibus dense pilis stipitato-stellatis obsitis. Petala densiuscule granulosa 2-2.3 X 1.7-2 mm obovata, apice retuso. Filamenta 2.1-2.3 mm longa glabra; antherarum thecae 0.7-0.9 mm spathulatae introrse biporosae, apice 0.2-0.3 mm emarginato, connectivo 0.8 mm prolongato ad basim ventraliter paulo bicornuto dorsaliter dente hebeti descendente 0.1-0.2 mm longo ornato. Stigma capitellatum 0.6 mm diam.; stylus 3.8-4 X 0.3-0.4 mm glaber in ovarii apicem immersus; ovarium 3-loculare 1/3 inferum apice setulis ca. 8 glanduliferis 0.4-0.5 mm longis coronato.

Type Collection: *Kjell von Sneidern 5525* (holotype S), collected at Pueblo Rico, La Selva, Depto. Caldas, Colombia, elev. 1500 m, 28 December 1945. "Flowers white."

The suggested relatives have plinerved leaves which, on the upper surface, are either glabrous or with simple basally expanded hairs. My previous remarks about the inconclusive nature of the anther form for sectional delimitation (Phytologia 11: 390-391. 1965) are still pertinent. Apart from the anthers, the general aspect of *M. sneidernii* is like that of *M. barbinervis* (Benth.) Triana and its allies (including *M. stipitata* Gleason and *M. cionotricha* Uribe ex char.)

348 MICONIA SALTUENSIS Wurdack, sp. nov.

Sect. *Amblyarrhena*. *M. bangii* Cogn. et *M. amabili* Cogn. affinis, sed petiolis linea paulo elevata in nodis connectis differt.

Frutex 0.8-4 m. altus. Ramuli obtuse sulcato-quadrangulati demum teretes sicut folia inflorescentiaque primum appresso-squamulosi mox glaberrimi. Petioli 0.7-1.2 cm longi; lamina 7-14 X 3-5 cm oblongo-elliptica, apice brevissime hebetissimeque acuminato, basi acuta (in petiolem ca. 0.5 cm decurrens), rigidiuscula et integra, 5-plinervata nervorum pare interiore 0.4-1.5 cm supra basim inserto pare exteriore paulo debili nervis secundariis 1.5-3 mm inter se distantibus subtus subplanis sed obviis nervulis reticulatis areolis plerumque 0.7-0.9 mm diam. Inflorescentia submultiflora 7-10 X 4-6 cm, ramulis teretibus vel paulo quadratis; flores 5-meri, pedicellis 1-2 X 0.7 mm, bracteolis 2.5 X 0.6 mm mox caducis juxta hypanthii basim vel paulo infra insertis. Hypanthium (ad torum) 3.3 X 3.5 mm; calycis tubus 0.3 mm altus, lobis interioribus 0.3-0.4 X 2.2 mm oblatis, apice rotundato, dentibus exterioribus tuberculiformibus lobos interiores aequantibus. Petala 4-4.5 X 3.5-4 mm suborbicularia dense granulosa. Stamina isomorphica; filamenta 4 mm longa ventraliter apicem versus sparsissime puberula, pilis non glandulosis 0.2 mm longis; antherarum thecae 2.8-2.9 X 1.3 X 1 mm oblongae exappendiculatae, poro 0.3 mm diam. dorsaliter inclinato. Stigma 1.5 mm diam. capitellatum; stylus 5 X 0.7-1.2 mm pilis gracilibus non glandulosis 0.2 mm longis densiuscule indutus in ovarii apicem 0.5 mm immersus; ovarium 3-loculare 1/2 inferum, apice conico sparse puberulo.

Type Collection: *P. C. Hutchison, J. K. Wright, & R. M. Straw 5935* (holotype US 2469205; isotypes UC, USM), collected at Carpish, above Acomayo on the road to Tingo Maria, Depto. Huánuco, Peru, elev. 2800 m, 17 July 1964. "Leaves red-margined, shiny green, lighter beneath. Flowers creamy white; receptacle green; anthers and filaments golden, the anthers later orange-brown."

Paratypes (both topotypical): *R. Ferreyra 8066*, 1 Oct. 1950; *E. Asplund 13090*, 15 Sept. 1940.

Both *M. bangii* and *M. amabilis* have similar puberulous styles but smaller petals; both lack the elevated interpetiolar line at the branchlet nodes. *Miconia lucida* Naud. (ex descr. and type photograph) has interpetiolar lines but a narrow hypanthium and truncate calyx limb as well as a non-expanded stigma. More distant relatives of *M. saltuensis*, all with much smaller flowers and glabrous styles, include *M. terera* Naud., *M. cookii* Gleason, and *M. pulgari* Macbride. The description of *M. adrienii* Macbride might be somewhat suggestive of *M. saltuensis*; however, that species has corymbiform inflorescences, longer calyx lobes, glabrous styles, and, particularly, pleiostemony - a feature not noted in the original description. Recent collections of *M. adrienii* (which have been compared with the holotype) are: *Ferreyra 990* (US), La Divisoria, San Martín; *Asplund 12567* (S), from Divisoria, Huánuco; and *Asplund 13294* (S), from between Pumahuasi and Divisoria.

MICONIA HUTCHISONII Wurdack, sp. nov.

Sect. *Amblyarrhena*. *M. alypifoliae* Naud. affinis, sed foliis subtus in nervorum primariorum axillis setulosis, stigmatibus capitellatis differt.

Ramuli quadrangulati demum teretes sicut folia (poculis subtus exceptis) inflorescentia floresque glabri et paulo vernicosi. Petioli 0.2-0.4 cm longi; lamina i. s. luteola 0.8-1.3 X 0.5-0.8 cm, elliptica vel ovato-elliptica apice hebeti-acuto basi late acuta vel obtusa, coriacea et integra vel apicem versus inconspicue 1-2-dentata, subtus sparse resinoso-glandulosa et in venarum primariarum axillis paucisetulosa setulis 0.2-0.4 mm longis, trinervata nervis secundariis paucis 1-1.5 mm inter se distantibus supra invisis subtus obscure evolutis venulis invisis. Paniculae numerosae submultiflorae, ramis adscendentibus; flores (4-)5-meri, pedicellis 1.5-2.5 mm longis, bracteolis mox caducis non visis. Hypanthium (ad torum) 3 X 1.8 mm; calycis tubus 0.3 mm altus, lobis 0.4 mm altis late triangularibus late acutis, dentibus exterioribus omnino adnatis tuberculatis lobos interiores aequantibus. Petala glabra 2-2.2 X 2.4-2.5 mm suborbicularia, apice rotundato vel paulo emarginato. Stamina glabra subanisomorphica; filamenta 1 mm longa; antherarum thecae 1.1 X 0.5-0.7 mm oblongae, apice emarginate poroso poro 0.3 mm diam., connectivo crasso basaliter 0.3 mm prolongato. Stigma capitellatum 0.8 mm diam.; stylus glaber 3.3 X 0.3-0.6 mm; ovarium omnino

inferum 3-loculare, apice glabro.

Type Collection: P. C. Hutchison & J. K. Wright 6638 (holotype US 2469206; isotypes UC, USM), collected on the summit 25 km above Huancabamba, on the road to Canchaque, Prov. Huancabamba, Depto. Piura, Peru, elev. 3200 m, 17 Sept. 1964. "Shrub 0.5-1 m."

Miconia alypifolia, known from southern Ecuador and northern Peru (Cajamarca), has glabrous primary vein axils on the lower leaf surfaces and truncate non-expanded stigmas, as well as larger (2.2-2.5 mm long) anthers with the connectives inconspicuously prolonged basally. Two other species of Miconia, both of Sect. Cremanium, reported from northern Peru have the general aspect (glabrous, small-leaved) of M. hutchisonii; M. vaccinioides (Bonpl.) Naud. has nodding 4-merous flowers and quite different large-pored anthers, while M. buxifolia Naud. has large-pored anthers and esetulose leaf vein axils. Oddly, M. vaccinioides apparently has not been collected since Weberbauer's field days. I have not seen any Peruvian collection of M. buxifolia (Weberbauer 4163, from Huambos, Cajamarca, was so cited in the Flora of Peru) and am somewhat skeptical of this record. Of the countable flowers in Hutchison & Wright 6638, 42 were 5-merous and 30 were 4-merous.

MICONIA MEDIA (D. Don) Naud. subsp. CAJAMARCENSIS Wurdack, subsp. nov.

A subsp. media foliis novellis subtus ubique laxe setulosis, pilis laxis luteis 1-1.6 mm longis, in superficie tarde glabratis differt.

Type Collection: P. C. Hutchison & J. K. Wright 5028 (holotype US 2469204; isotypes UC, USM), collected on a steep brushy hillside 1 km northeast of San Pablo, Depto. Cajamarca, Peru, elev. 2630 m, 13 May 1964.

The typical subspecies has the laminar pubescence confined to the primary vein axils and primary vein bases on the lower surface (as does subsp. borealis Wurdack). In subsp. cajamarcensis, the external pair of primary leaf veins are more obvious than in the typical subspecies and the young branchlets and inflorescences are more densely (but caducously) stellulate-furfuraceous. There are no floral differences apparent in the Peruvian populations; an Ecuadorian subspecies (the description now in press for the Memoirs of The New York Botanical Garden) has glandular-puberulous styles.